COS 423, February 20, 1996
Handout Number 4

Homework guidelines

Homework is due by the end of class on the due date.

You are encouraged to discuss ideas on how to solve the homework problems, but you should write and submit your solutions seperately. List the names of all the people with whom you collaborated on the top of the first sheet along with approximately how many hours the assignment took you. This will not affect your grade in any way.

The following are some guidelines on what I expect your homework solutions to look like. Following these suggestions will make it a lot more likely for you to receive partial credit. It will also help me in the grading so I can get the papers back to you quickly. If you have any questions about anything feel free to use e-mail, office hours or any other means available to you in order to get my attention. Thanks.

-Steve... and Shan

•On calculations...

Please write a sentence or two in english (NOT a book) explaining what you are going to do before you just list out a lot of numbers. This is the only way I can give you partial credit if your calculations are wrong.

For questions like 2-3, give the ordered list of functions along with a brief justification of why the ordering is as given. This justification could consist of group cases of similiar reasoning and a proof of one case from each group.

•On pseudo-code...

Some of your variable names should be two letters or more in length. Comments are also good to explain anything that might not be obvious.

Don't waste time hacking your code to death. Once the desired running time in obtained, clarity is more important than saving one or two instructions every loop iteration.

•On recurrences...

You are expected to prove that your bounds are correct. As with calculations, tell me what you are trying to do as you do it. If you are using induction, clearly state the base case as well as the induction hypothesis.

For example, your proof might look something like...

1. Assume k = lg n, that is, n is a power of 2

I. Prove that T(n) = 10n by induction

Base case: n=1, so...
Induction hypothesis: T(n) = 10n for n < n'

Prove T(n') = 10n'
lots of calculations

2. If n is not a power of 2 then...
lots more calculations

•On the general quality of what you hand in...

Please do not hand in your first draft. Your answers should be presented neatly in a well thought out manner. If I can't understand your solutions I can't grade them.